

**Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382**

Final

**AIR QUALITY PERMIT
Issued under 401 KAR 52:020**

Permittee Name: R. R. DONNELLEY AND SONS COMPANY
DANVILLE MANUFACTURING DIVISION
Mailing Address: 3201 Lebanon Road, Danville, Kentucky 40422

Source Name: Same as above
Mailing Address: Same as above

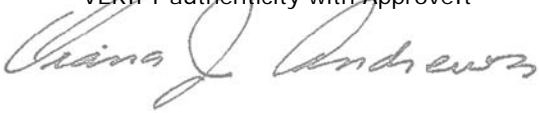
Source Location: Same as above

Permit Number: V-05-037
Source A. I. #: 381
Activity #: APE20050001
Review Type: Title V, Synthetic Minor, Renewal
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Regional Office: London Regional Office
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London, KY 40741
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Application
Complete Date: May 18, 2005
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E-Signed by Diana Andrews
VERIFY authenticity with ApproveIt 


**John S. Lyons, Director
Division for Air Quality**

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SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

- 01 (01) Offset heatset lithographic press KDM-876
One Model C-411 Hot Air Dryers manufactured by TEC Systems
Construction commenced: July 1985**
- 02 (02) Offset heatset lithographic press KDM-880
Two Sigma No. 80 Hot Air Dryers manufactured by M.E.G.
Construction commenced: August 1985**
- 03 (03) Offset heatset lithographic press KDM-881
Two Sigma No. 80 Hot Air Dryers manufactured by M.E.G.
Construction commenced: November 1985**
- 04 (04) Offset heatset lithographic press KDM-882
Two Model C-3800 Hot Air Dryers manufactured by TEC Systems
Construction commenced: June 1987**
- 05 (05) Offset heatset lithographic press KDM-883
Two Model Phazer II Hot Air Dryers manufactured by MEGTEC
Construction commenced: April 1986**
- 06 (06) Offset heatset lithographic press KDM-884
Two Model C-3800 Hot Air Dryers manufactured by TEC Systems
Construction commenced: September 1988**
- 07 (07) Offset heatset lithographic press KDM-877
One Model C-411 Hot Air Dryers manufactured by TEC Systems
Construction commenced: July 1985**

Control Equipment:

- 1. Recuperative thermal oxidizer #1 (KATEC), installed September, 1988.
 - 2. Regenerative thermal oxidizer #2 (MEGTEC), installed September, 1998.
 - 3. Regenerative thermal oxidizer #3 (MEGTEC), installed January, 2000.
 - 4. Regenerative thermal oxidizer #4 (L & E), installed August, 2003.
- Three (3) regenerative thermal oxidizers and one (1) recuperative thermal oxidizer are controlling all 14 presses in a multiplex configuration.

APPLICABLE REGULATIONS:

401 KAR 50:012, General Application, Section 1(2)

40 CFR Part 64, Compliance assurance monitoring (CAM), applies to emission unit subject to a pollutant-specific emission limitation or standard that uses a control device to achieve compliance with that pollutant-specific limitation and the pre-control device emission of that specific pollutant is equal to or greater than 100 % of the amount, in tons per year, required for a source to be classified as major source, as specified in 40 CFR 64.2 (a).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1. Operating Limitations:

Usage rates of inks, fountain solutions and cleanup solvents containing VOCs shall be restricted so as not to exceed the emission limitations in Section B(2).

2. Emission Limitations:

Synthetic minor limitation to preclude applicability of Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality.

Volatile organic compounds (VOC) emissions shall be less than 250 tons per rolling 12-month period.

Compliance Demonstration Method: see group requirements

3. Testing Requirements: see group requirements

4. Specific Monitoring Requirements: see group requirements

5. Specific Record Keeping Requirements: see group requirements

6. Specific Reporting Requirements: see group requirements

7. Specific Control Equipment Operating Conditions: see group requirements

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- 08 (08) Offset heatset lithographic press KDM-885**
Two Model P-693 Hot Air Dryers manufactured by TEC Systems
Construction commenced: July 1993

Control Equipment:

1. Recuperative thermal oxidizer #1 (KATEC), installed September, 1988.
 2. Regenerative thermal oxidizer #2 (MEGTEC), installed September, 1998.
 3. Regenerative thermal oxidizer #3 (MEGTEC), installed January, 2000.
 4. Regenerative thermal oxidizer #4 (L & E), installed August, 2003.
- Three (3) regenerative thermal oxidizers and one (1) thermal oxidizer are controlling all 14 presses in a multiplex configuration.

APPLICABLE REGULATIONS:

401 KAR 50:012, General Application, Section 1(2)

40 CFR Part 64, Compliance assurance monitoring (CAM), applies to emission unit subject to a pollutant-specific emission limitation or standard that uses a control device to achieve compliance with that pollutant-specific limitation and the pre-control device emission of that specific pollutant is equal to or greater than 100 % of the amount, in tons per year, required for a source to be classified as major source, as specified in 40 CFR 64.2 (a).

1. **Operating Limitations:** None

2. **Emission Limitations:** None

To Calculate VOC emissions: see group requirements

3. **Testing Requirements:** see group requirements

4. **Specific Monitoring Requirements:** see group requirements

5. **Specific Record Keeping Requirements:** see group requirements

6. **Specific Reporting Requirements:** see group requirements

7. **Specific Control Equipment Operating Conditions:** see group requirements

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- 09 (19) Offset heatset lithographic press KDM-886**
Two Model P-390 Hot Air Dryers manufactured by TEC Systems
Construction commenced: May 1994

Control Equipment:

1. Recuperative thermal oxidizer #1 (KATEC), installed September, 1988.
 2. Regenerative thermal oxidizer #2 (MEGTEC), installed September, 1998.
 3. Regenerative thermal oxidizer #3 (MEGTEC), installed January, 2000.
 4. Regenerative thermal oxidizer #4 (L & E), installed August, 2003.
- Three (3) regenerative thermal oxidizers and one (1) recuperative thermal oxidizer are controlling all 14 presses in a multiplex configuration.

APPLICABLE REGULATIONS:

401 KAR 50:012, General Application, Section 1(2)

40 CFR Part 64, Compliance assurance monitoring (CAM), applies to emission unit subject to a pollutant-specific emission limitation or standard that uses a control device to achieve compliance with that pollutant-specific limitation and the pre-control device emission of that specific pollutant is equal to or greater than 100 % of the amount, in tons per year, required for a source to be classified as major source, as specified in 40 CFR 64.2 (a).

1. Operating Limitations:

Usage rates of inks, fountain solutions and cleanup solvents containing VOC's shall be restricted so as not to exceed the emission limitations in Section B(2).

2. Emission Limitations:

Synthetic minor limitation to preclude applicability of Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality.

Volatile organic compounds (VOC) emissions shall be less than 40 tons per rolling 12-month period.

Compliance Demonstration Method: see group requirements

3. Testing Requirements: see group requirements

4. Specific Monitoring Requirements: see group requirements

5. Specific Record Keeping Requirements: see group requirements

6. Specific Reporting Requirements: see group requirements

7. Specific Control Equipment Operating Conditions: see group requirements

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- 10 (31) Offset heatset lithographic press KDM-887**
Two Model P-693 Hot Air Dryers manufactured by TEC Systems
Construction commenced: 2001
- 11 (32) Offset heatset lithographic press KDM-888**
Two Model P-390 Hot Air Dryers manufactured by TEC Systems
Construction commenced: 2001

Control Equipment:

1. Recuperative thermal oxidizer #1 (KATEC), installed September, 1988.
 2. Regenerative thermal oxidizer #2 (MEGTEC), installed September, 1998.
 3. Regenerative thermal oxidizer #3 (MEGTEC), installed January, 2000.
 4. Regenerative thermal oxidizer #4 (L & E), installed August, 2003.
- Three (3) regenerative thermal oxidizers and one (1) recuperative thermal oxidizer are controlling all 14 presses in a multiplex configuration.

APPLICABLE REGULATIONS:

401 KAR 50:012, General Application, Section 1(2)

40 CFR Part 64, Compliance assurance monitoring (CAM), applies to emission unit subject to a pollutant-specific emission limitation or standard that uses a control device to achieve compliance with that pollutant-specific limitation and the pre-control device emission of that specific pollutant is equal to or greater than 100 % of the amount, in tons per year, required for a source to be classified as major source, as specified in 40 CFR 64.2 (a).

1. Operating Limitations:

Usage rates of inks, fountain solutions and cleanup solvents containing VOC's shall be restricted so as not to exceed the emission limitations in Section B(2).

2. Emission Limitations:

VOC Emission Limitations

Synthetic minor limitation to preclude applicability of Regulation 401 KAR 51:017, Prevention of significant deterioration or air quality.

Volatile organic compounds (VOC) emissions shall be less than 36 tons per rolling 12-month period.

VOC Compliance Demonstration Method: see group requirements

HAP Emission Limitations

The total of single and combined HAP emissions from EP # 10, 11 and 12 shall not exceed nine (9) tons and twenty-two and half (22.5) tons per year, respectively.

HAP Compliance Demonstration Method: see group requirements

3. Testing Requirements: see group requirements

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. **Specific Monitoring Requirements:** see group requirements
5. **Specific Record Keeping Requirements:** see group requirements
6. **Specific Reporting Requirements:** see group requirements
7. **Specific Control Equipment Operating Conditions:** see group requirements

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- 12(34) Offset heatset lithographic press KDM-889**
Two Model P-390 Hot Air Dryers manufactured by TEC Systems
Construction commenced: 2003

Control Equipment:

1. Recuperative thermal oxidizer #1 (KATEC), installed September, 1988.
 2. Regenerative thermal oxidizer #2 (MEGTEC), installed September, 1998.
 3. Regenerative thermal oxidizer #3 (MEGTEC), installed January, 2000.
 4. Regenerative thermal oxidizer #4 (L & E), installed August, 2003.
- Three (3) regenerative thermal oxidizers and one (1) recuperative thermal oxidizer are controlling all 14 presses in a multiplex configuration.

APPLICABLE REGULATIONS:

401 KAR 50:012, General Application, Section 1(2)

40 CFR Part 64, Compliance assurance monitoring (CAM), applies to emission unit subject to a pollutant-specific emission limitation or standard that uses a control device to achieve compliance with that pollutant-specific limitation and the pre-control device emission of that specific pollutant is equal to or greater than 100 % of the amount, in tons per year, required for a source to be classified as major source, as specified in 40 CFR 64.2 (a).

1. Operating Limitations:

Usage rates of inks, fountain solutions and cleanup solvents containing VOC's shall be restricted so as not to exceed the emission limitations in Section B(2).

2. Emission Limitations:

VOC Emission Limitations

Synthetic minor limitation to preclude applicability of Regulation 401 KAR 51:017, Prevention of significant deterioration or air quality.

Volatile organic compounds (VOC) emissions shall be less than 36 tons per rolling 12-month period.

VOC Compliance Demonstration Method: see group requirements

HAP Emission Limitations

The total of single and combined HAP emissions from EP # 10, 11 and 12 shall not exceed nine (9) tons and twenty-two and half (22.5) tons per year, respectively.

HAP Compliance Demonstration Method: see group requirements

3. Testing Requirements: see group requirements

4. Specific Monitoring Requirements: see group requirements

5. Specific Record Keeping Requirements: see group requirements

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. **Specific Reporting Requirements:** see group requirements
7. **Specific Control Equipment Operating Conditions:** see group requirements

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**13(35) Offset heatset lithographic press KDM-890
One Contiweb Ecoweb Plus One Hot Air Dryer
Proposed Construction Date: 2005**

**14(36) Offset heatset lithographic press KDM-891
One Contiweb Ecoweb Plus One Hot Air Dryer
Proposed Construction Date: 2005**

Control Equipment:

1. Recuperative thermal oxidizer #1 (KATEC), installed September, 1988.
 2. Regenerative thermal oxidizer #2 (MEGTEC), installed September, 1998.
 3. Regenerative thermal oxidizer #3 (MEGTEC), installed January, 2000.
 4. Regenerative thermal oxidizer #4 (L & E), installed August, 2003.
- Three (3) regenerative thermal oxidizers and one (1) recuperative thermal oxidizer are controlling all 14 presses in a multiplex configuration.

APPLICABLE REGULATIONS:

401 KAR 50:012, General Application, Section 1(2)

40 CFR Part 64, Compliance assurance monitoring (CAM), applies to emission unit subject to a pollutant-specific emission limitation or standard that uses a control device to achieve compliance with that pollutant-specific limitation and the pre-control device emission of that specific pollutant is equal to or greater than 100 % of the amount, in tons per year, required for a source to be classified as major source, as specified in 40 CFR 64.2 (a).

1. Operating Limitations:

Usage rates of inks, fountain solutions and cleanup solvents containing VOC's shall be restricted so as not to exceed the emission limitations in Section B(2).

2. Emission Limitations:

VOC Emission Limitations

Synthetic minor limitation to preclude applicability of Regulation 401 KAR 51:017, Prevention of significant deterioration or air quality.

Volatile organic compounds (VOC) emissions shall be less than 36 tons per rolling 12-month period.

VOC Compliance Demonstration Method: see group requirements

HAP Emission Limitations

The total of single and combined HAP emissions from EP # 13 and 14 shall not exceed nine (9) tons and twenty-two and half (22.5) tons per year, respectively.

HAP Compliance Demonstration Method: see group requirements

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. **Testing Requirements:** see group requirements
4. **Specific Monitoring Requirements:** see group requirements
5. **Specific Record Keeping Requirements:** see group requirements
6. **Specific Reporting Requirements:** see group requirements
7. **Specific Control Equipment Operating Conditions:** see group requirements

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Group Requirements List of Points (01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13 and 14)****1. Compliance Demonstration Method:
VOC**

- a. The following formula or equivalent may be used in calculating emissions of VOC's from ink:

VOC emitted (lbs) = $\Sigma \{ \text{gallons of ink} \times \text{VOC content of ink (lbs/gal)} \times 0.8 \times (1 - \text{control efficiency of the thermal oxidizers}) \}$

- b. The following formula or equivalent may be used in calculating emissions of VOC's from fountain solution:

VOC emitted (lbs) = $\Sigma \{ \text{gallons of fountain solution concentrate} \times \text{VOC content of fountain solution concentrate (lbs/gal)} \times 0.7 \times (1 - \text{control efficiency of the thermal oxidizers}) \} + \Sigma \{ \text{gallons of fountain solution concentrate} \times \text{VOC content of fountain solution (lbs/gal)} \times 0.30 \}$

- c. The following formula or equivalent may be used in calculating emissions of VOC's from clean up solvent (Auto Blanket Wash ABW):

VOC emitted (lbs) = $\Sigma \{ \text{gallons of ABW} \times \text{VOC content of ABW (lbs/gal)} \times 0.4 \times (1 - \text{control efficiency of the thermal oxidizers}) \} + \Sigma \{ \text{gallons of ABW} \times \text{VOC content of ABW (lbs/gal)} \times 0.60 \}$

- d. The following formula or equivalent may be used in calculating emissions of VOC's from clean up solvent (Manual Blanket Wash MBW):

VOC emitted (lbs) = $\Sigma \{ \text{gallons of MBW} \times \text{VOC content of MBW (lbs/gal)} \times 0.50 \}$

VOC emissions determined by formulas (a) through (d) or equivalent shall be summed and used to demonstrate compliance with the emission limitations listed for each affected facility(s).

HAP (Applicable to Points #10, 11, 12, 13 &14)

- a. The following formula or equivalent may be used in calculating emissions of HAP's from ink:

HAP emitted (lbs) = $\Sigma \{ \text{gallons of ink} \times \text{HAP content of ink (lbs/gal)} \times 0.8 \times (1 - \text{control efficiency of the thermal oxidizers}) \}$

- b. The following formula or equivalent may be used in calculating emissions of HAP's from fountain solution:

HAP emitted (lbs) = $\Sigma \{ \text{gallons of fountain solution concentrate} \times \text{HAP content of fountain solution concentrate (lbs/gal)} \times 0.7 \times (1 - \text{control efficiency of the thermal oxidizers}) \} + \Sigma \{ \text{gallons of fountain solution concentrate} \times \text{HAP content of fountain solution (lbs/gal)} \times 0.30 \}$

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. The following formula or equivalent may be used in calculating emissions of HAP's from clean up solvent (Auto Blanket Wash ABW):

$$\text{HAP emitted (lbs)} = \Sigma \{ \text{gallons of ABW} \times \text{HAP content of ABW (lbs/gal)} \times 0.4 \times (1 - \text{control efficiency of the thermal oxidizers}) \} + \Sigma \{ \text{gallons of ABW} \times \text{HAP content of ABW (lbs/gal)} \times 0.60 \}$$

- d. The following formula or equivalent may be used in calculating emissions of HAP's from clean up solvent (Manual Blanket Wash MBW):

$$\text{HAP emitted (lbs)} = \Sigma \{ \text{gallons of MBW} \times \text{HAP content of MBW (lbs/gal)} \times 0.50 \}$$

HAP emissions determined by formulas (a) through (d) or equivalent shall be summed on a monthly basis and used to demonstrate compliance with the emission limitations listed for each affected facility(s).

For the formulas above, the control efficiency of the thermal oxidizers is 97% or that efficiency established during the most recent performance test, whichever is lower.

1. The permittee shall use the data collected during the performance test to calculate and record the average combustion temperature. This average combustion temperature is the minimum operating limit of the thermal oxidizer.
2. A control efficiency of 0% shall be assumed for all periods the thermal oxidizers are receiving emissions from the presses during which, for a period of 3 hours or more, the average combustion chamber temperature of the thermal oxidizer is more than 28°C (50°F) below the average combustion chamber temperature of the thermal oxidizer during the most recent performance test.
3. The VOC/HAP emissions from presses shall be routed to the thermal oxidizers at all times.

2. **Testing Requirements:** see Section D (2) – (4)

3. **Specific Monitoring Requirements:**

For an oxidizer other than catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ± 1 percent of the temperature being measured, or $\pm 1^\circ\text{C}$, whichever is greater. The thermocouple or temperature sensor shall be installed in the combustion chamber at a location in the combustion zone.

4. **Specific Record keeping Requirements:**

The permittee shall maintain records of the following information for each thermal oxidizer:

- a. The design and/or manufacturer's specifications.
- b. The operational procedures and preventive maintenance records.
- c. The combustion chamber temperature for each thermal oxidizer in operation.
- d. All 3-hour periods (during actual printing operations) during which the average combustion chamber temperature of the thermal oxidizer is more than 28°C (50°F) below the average combustion temperature of the thermal oxidizer during

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

the most recent performance test.

- e. During all periods of operation of the thermal oxidizers during which the 3-hour average combustion chamber temperature of the thermal oxidizer is more than 28°C (50°F) below the average combustion chamber temperature of the thermal oxidizer during the most recent performance test, operation of the presses without control, or malfunction of the thermal oxidizers, a daily log of the following information shall be kept:
 1. Whether any air emissions were visible from the facilities associated with the thermal oxidizers.
 2. Whether visible emissions were normal for the process.
 3. The cause of the visible emissions.
 4. Any corrective action taken.

The permittee shall keep calendar month records of usage of all inks, fountain solutions, and clean up solvents. At the end of each month, VOC and HAP emissions shall be calculated and recorded. These records shall be summarized and tons per month VOC/HAP emissions calculated and recorded. Tons VOC/HAP per 12 months shall also be recorded. The recorded tons per 12 months shall be a 12-month rolling total representing the most recent year. In addition, those records shall show compliance with VOC/HAP emission limitations listed in this permit. These records, as well as purchase orders and invoices for all VOC/HAP-containing materials, shall be made available for inspection upon request by any duly authorized representatives of the Division for Air Quality.

5. Specific Reporting Requirements:

- a. The permittee shall report any deviations from the permit requirements (including approximate length of time) by these emission units as specified in Section F.7 and F.8.
- b. The reporting of the following shall be done on a semi-annual basis:
 1. Monthly VOC emissions in tons.
 2. Rolling 12 month total for VOC emissions during each month.
 3. Compliance demonstration with VOC emissions limitations listed in this permit.

Applicable to Points #10, 11, 12, 13 & 14

4. Monthly individual HAP emissions in tons.
5. Monthly combined HAPs emission in tons.
6. Rolling 12 month total of individual HAP's emissions for each month.
7. Rolling 12 month total of combined HAP's emissions for each month.
8. Compliance demonstration with HAP emissions limitations listed in this permit.

6. Specific Control Equipment Operating Conditions:

The thermal oxidizers shall be operated in accordance with standard operating practices based on generally accepted procedures, taking into account manufacturer's recommendations. See Section E for specific operating requirements.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

<u>Description</u>	<u>Generally Applicable Regulation</u>
1. Pneumatic Collector #1, 2, 3, & 4 w/ integral baghouse	401 KAR 59:010
2. 2 UV Coaters	NA
3. 1 Clean Solvent Tank	NA
4. 6 Hot Melt Glue Pots	NA
5. 2 Diesel Engines	NA
6. 2 Emergency Electrical Generator Natural Gas Fired	NA
7. 2 Propane Storage Tanks	NA
8. Preliminary Operations, including film processors and 2 plate drying ovens	NA
9. 26 Ink Jet Printers	NA
10. 15 Parts Washers	401 KAR 59:185, Sec 8(2)
11. 2 Oil/Water Separator 1300 gallons	NA
12. 5 Cooling Towers	401 KAR 63:010
13. 3 Hot Water Boilers	401 KAR 59:015
14. 1 Dirty Solvent Tank	401 KAR 60:005
15. 14 Shrink wrap units	NA

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
2. The destruction efficiency of the thermal oxidizers shall be tested within six months following the issuance of this permit and every five years or upon permit renewal using Reference Method 25A specified in Regulation 401 KAR 50:015, Documents incorporated by reference, or other method approved in the Compliance Test Protocol.
3. If the permittee can demonstrate to the Division's satisfaction that testing of representative stacks yields results comparable to those that would be obtained by testing all stacks, the Division will approve testing of representative stacks on case-by-case basis.
4. Pursuant to 401 KAR 50:045 Section 5 in order to demonstrate that a source is capable of complying with a standard at all times, a performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirement on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.
5. In accordance with 40 CFR Part 64, Compliance Assurance Monitoring (CAM), the permittee has submitted a CAM Plan as part of Title V renewal process. This CAM Plan addresses the VOC pollution control system (PCS). The PCS consists of two (2) MEGTEC Regenerative Thermal Oxidizers (RTOs), one (1) L&E Regenerative Thermal Oxidizer, and one (1) KATEC Recuperative Thermal Oxidizer, Emission Points 37, 24, 30 and 33 respectively and the process units (press dryers) that vent to these devices. The PCS controls emissions from the fourteen (14) heat-set web offset lithographic printing presses (Emission Points 01 KDM-876, 02 KDM-880, 03 KDM-881, 04 KDM-882, 05 KDM-883, 06 KDM-884, 07 KDM-877, 08 KDM-885, 09 KDM-886, 10 KDM-887, 11 KDM-888, 12 KDM-889, 13 KDM-890, and 14 KDM-891).

Monitoring of the PCS for compliance is accomplished by:

- A. Recording the operating temperature of the PCS components
- B. Periodic external inspection of collection devices and dampers for visible emissions
- C. Periodic emissions performance tests as required by the Title V permit.

The elements of the monitoring approach, including indicators to be monitored, indicator ranges, and performance criteria are presented in Table 1.

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

TABLE 1. MONITORING APPROACH FOR RTO SYSTEM

CAM Requirement	Indicator #1	Indicator #2	Indicator #3
I. Indicator	Oxidizer operating temperature.	Visual Inspection of Collection System	Performance test
Measurement Approach	Record the operating temperature of the PCS components.	Visual inspection of collection dampers, by-pass valves and PCS stacks for visible emissions.	Conduct emissions test to demonstrate compliance with permitted destruction efficiency.
II. Indicator Range	An excursion is identified as any finding that the compliance point temperatures for the PCS components does not meet the minimum temperature required by the permit at all times when collecting process solvent vapors.	An excursion is identified as any finding that of visible emissions.	An excursion is identified as any finding that the oxidizer does not meet the permitted destruction efficiency.
Corrective Action	An excursion below the minimum temperature will automatically shut down the system and supported process units. This will initiate activities to correct the excursion. and may trigger a reporting requirement.	Each excursion triggers an assessment of the problem, corrective action and may trigger a reporting requirement.	Each excursion triggers an assessment of the problem, corrective action and may trigger a reporting requirement.
III. Performance Criteria			
A. Data Representativeness	The recording instrument shall be accurate to within 1.0% of temperature measured, or $\pm 1^{\circ}\text{C}$, whichever is greater.	Visual inspection logs will be maintained and audited to ensure that activity is conducted.	A test protocol shall be prepared and approved by the regulatory Agency prior to conducting the performance test.
B. Verification of Operational Status	Temperatures recorded manually, on chart paper or electronic media.	Records of the inspections conducted and observations made will be maintained in the EHS department	Not applicable.
C. QA/QC Practices and Criteria	Calibration check of the recording instrument will be conducted in accordance with OEM recommendations.	Not applicable.	EPA test methods approved in protocol.
D. Monitoring Frequency	Measured continuously	Weekly	Once every 5 years.

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

CAM Requirement	Indicator #1	Indicator #2	Indicator #3
Data Collection Procedure	Automatically recorded on electronic media on a continuous basis. Data can be extracted from archives on demand.	Weekly visual inspection by a member of the EHS and/or facility maintenance department (or their designee)	Per approved test method.
Averaging Period	3 hours.	Not applicable.	Not applicable.
E. Record Keeping	Maintain records of temperature monitoring data and corrective actions taken in response to excursions for a period of 5 years.	Maintain records of the inspections and corrective actions taken in response to excursions in accordance with the compliance section of Donnelley's Preventative Maintenance (PM) program for a period of 5 years.	Maintain a copy of the test report for 5 years or until another test is conducted. Maintain records of corrective actions taken in response to excursions.
F. Reporting	Number, duration, cause of any excursion and the corrective action taken.	Number, duration, cause of any excursion and the corrective action taken.	Submit test protocol to Agency as required.
Frequency	As requested by agency or in the event of excursions, semi-annually.	As requested by agency or in the event of excursions, semi-annually.	For each performance test conducted.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit;
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Section 1b (V)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall submit written notice upon request.
8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within *30 days*. Other deviations from permit requirements shall *be included in the semiannual report required by Section F.6* [Section 1b (V) 3, 4. of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
 - f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

**SECTION F - MONITORING, RECORD KEEPING, AND REPORTING
REQUIREMENTS (CONTINUED)**

Division for Air Quality
London Regional Office
875 S. Main Street
London, KY 40741

U.S. EPA Region 4
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-8960

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.
11. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

SECTION G - GENERAL CONDITIONS(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a, 3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a, 6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
 - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the conditions of this permit [Section 1a, 7,8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

SECTION G - GENERAL CONDITIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States [Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].
11. This permit does not convey property rights or exclusive privileges [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].
14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].
15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

SECTION G - GENERAL CONDITIONS (CONTINUED)

16. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:
 - a. Applicable requirements that are included and specifically identified in the permit and
 - b. Non-applicable requirements expressly identified in this permit.
17. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least thirty (30) days prior to the test.

(b) Permit Expiration and Reapplication Requirements

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements **None**

SECTION G - GENERAL CONDITIONS (CONTINUED)**(e) Acid Rain Program Requirements**

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
 - e. This requirement does not relieve the source of other local, state or federal notification requirements.
2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 1515
Lanham-Seabrook, MD 20703-1515.

2. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION G - GENERAL CONDITIONS (CONTINUED)

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
 - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None